



THE FIRST OFFICE ACTION (TRANSLATION)

The present invention relates to a surface acoustic wave filter. Through examination, the detailed opinion is provided as follows.

a) The following is a quotation of Article 22(3) of the Chinese Patent Law.

Inventiveness means that, as compared with the technology existing before the date of filing, the invention has prominent substantive features and represents a notable progress and that the utility model has substantive features and represents progress.

Claims Rejections

1. Claim 1 is rejected under Article 22 (3) of the Chinese Patent Law as being without inventiveness.

The claim 1 of the present application claims for protection of a surface acoustic wave filter. The cited reference 1-CN1105166A also disclosed a surface acoustic wave filter, and disclosed concretely the following technical features: a piezoelectric substrate, a plurality of inter-digital transducers formed on the piezoelectric substrate and arranged in a direction propagation of the surface acoustic wave, said inter-digital transducers being used for forming the surface acoustic wave filter, at least one one-port SAW resonator having at least one inter-digital transducer and connected to at least one of input side and output side of the surface acoustic wave filter in series (see claim 1 and Fig. 4 of the cited reference 1).

The cited reference 1 did not record definitely that the frequency of a pass band of said surface acoustic wave filter and the antiresonant frequency of said resonator are substantially equal, however, the cited reference 1 teaches that the antiresonant frequency of said resonator is

higher than the frequency of a pass band of said surface acoustic wave filter, a person skilled in the art could obtain various characteristics of the wave filter by changing the number of the transducer and the intervals between the electrode fingers, that is, the distinguishing technical features of the claim 1 are common sense.

Therefore, it is obvious for a person skilled in the art to obtain the technical scheme of the claim 1 by combining the cited reference 1 and the common sense, so that the claim 1 does not possess inventiveness.

2. Claims 2-3 are rejected under Article 22 (3) of the Chinese Patent Law as being without inventiveness.

The cited reference 1 further disclosed the following technical features: two reflectors are provided on both sides of the plurality of inter-digital transducers arranged in the longitudinally-coupled double-mode resonator filter, so as to enclose vibration energy of the surface acoustic wave between the two reflectors (see Fig. 4 of the cited reference 1); the resonator is a one-port resonator (see claim 1 of the cited reference 1).

Based on the same reasons as the above, the claims 2-3 do not possess inventiveness.

3. Claim 4 is rejected under Article 22 (3) of the Chinese Patent Law as being without inventiveness.

The resonator disclosed in the cited reference 1 is not provided with reflectors on both sides thereof, however, the reflectors are not necessary in the technical scheme for a person skilled in the art. Without the reflectors, the reflecting function of end surfaces of crystal could be achieved by using a predetermined number of inter-digital transducers and the method for positioning the transducers. Therefore, the claim 4 is obvious for a person skilled in the art over the cited reference 1 in view of the common sense.

4. Claims 5-6 are rejected under Article 22 (3) of the Chinese Patent

Law as being without inventiveness.

The additional features of the claims 5-6 are disclosed by the cited reference 1 (see claim 1, claim 10 and Fig. 4 of the cited reference 1), therefore, the claims 5-6 do not possess inventiveness.

5. Claim 7 is rejected under Article 22 (3) of the Chinese Patent Law as being without inventiveness.

The claim 7 of the present application claims for protection of a surface acoustic wave filter. The cited reference 1-CN1105166A also disclosed a surface acoustic wave filter, and further disclosed concretely the following technical features: a piezoelectric substrate, a plurality of inter-digital transducers formed on the piezoelectric substrate and arranged in a direction propagation of the surface acoustic wave, said inter-digital transducers being used for forming the surface acoustic wave filter, at least one one-port SAW resonator having at least one inter-digital transducer and connected to at least one of input side and output side of the surface acoustic wave filter in series (see claim 1 and Fig. 4 of the cited reference 1).

The cited reference 1 did not record definitely that a pitch of electrode fingers in the inter-digital transducers of the resonator is larger than that of electrode fingers in the inter-digital transducers of the surface wave filter, however, a person skilled in the art could obtain various characteristics of the wave filter by changing the number of the transducer and the intervals between the electrode fingers, that is, the distinguishing technical features of the claim 7 are common sense.

Therefore, it is obvious for a person skilled in the art to obtain the technical scheme of the claim 7 by combining the cited reference 1 and the common sense, so that the claim 7 does not possess inventiveness.

6. Claims 8-9 are rejected under Article 22 (3) of the Chinese Patent Law as being without inventiveness.

The cited reference 1 further disclosed the following technical features: two reflectors are provided on both sides of the plurality of inter-digital transducers arranged in the longitudinally-coupled double-mode resonator filter, so as to enclose vibration energy of the surface acoustic wave between the two reflectors (see Fig. 4 of the cited reference 1); the resonator is a one-port resonator (see claim 1 of the cited reference 1).

Based on the same reasons as the above, the claims 8-9 do not possess inventiveness.

7. Claim 10 is rejected under Article 22 (3) of the Chinese Patent Law as being without inventiveness.

The resonator disclosed in the cited reference 1 is not provided with reflectors on both sides thereof, however, the reflectors are not necessary in the technical scheme for a person skilled in the art. Without the reflectors, the reflecting function of end surfaces of crystal could be achieved by using a predetermined number of inter-digital transducers and the method for positioning the transducers. Therefore, the claim 10 is obvious for a person skilled in the art over the cited reference 1 in view of the common sense.

8. Claims 11-12 are rejected under Article 22 (3) of the Chinese Patent Law as being without inventiveness.

The additional features of the claims 11-12 are disclosed by the cited reference 1 (see claim 1, claim 10 and Fig. 4 of the cited reference 1), therefore, the claims 11-12 do not possess inventiveness.

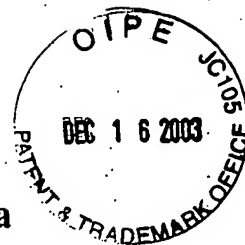
Conclusions

Concerning the above, the present application could not be granted until now. The claims 1-12 do not possess inventiveness, and there are not

any substantive contents that could be granted. Therefore, even if the applicant redrafts and/or recombines the claims, the present application is impossible to be granted. If the applicant could not expound sufficient reasons that the present application possesses inventiveness, the application shall be rejected finally.

The applicant should be also noted that the amendments may not go beyond the scope of the disclosure contained in the initial description and claims, that is, it should be in conformity with Article 33 of Chinese Patent Law which is quoted below.

An applicant may amend his or its application for a patent, but the amendment may not go beyond the scope of the disclosure contained in the initial description and claims, and the amendment to the application for a patent for design may not go beyond the scope of the disclosure as shown in the initial drawings or photographs.



State Intellectual Property Office of People's Republic of China

Add: 16/F, Zhongke Building, No. 80, Haidian Road, Haidian District, Beijing, P.R. China Postal Code: 100080

| | | |
|--------------------|------------------------------|-------------------------------------|
| Applicant(s) | SANYO ELECTRIC CO., LTD | Issuing Date: September 12, 2003 |
| Patent Agent(s) | Xiaofeng LIU | |
| Application No. | 01144302.2 | |
| Title of Invention | Surface Acoustic Wave Filter | |

THE FIRST OFFICE ACTION

1. ☒ The applicant has filed a request for substantive examination on _____ (day/month/year). The examiner has proceeded the substantive examination on the above mentioned patent application for invention in accordance with the provisions of Article 35(1) of the Chinese Patent Law.
- ☐ The Patent Office has decided to proceed a substantive examination on the above mentioned patent application for invention in accordance with the provisions of Article 35(2) of the Chinese Patent Law.
2. ☒ The applicant claimed:
- the filing date 2000.12.15 in the Japan Patent Office as the priority date,
- the filing date _____ in the _____ Patent Office as the priority date,
- the filing date _____ in the _____ Patent Office as the priority date,
- the filing date _____ in the _____ Patent Office as the priority date,
- the filing date _____ in the _____ Patent Office as the priority date.
- ☒ The applicant has provided a copy of the priority documents certified by the Patent Office where the prior application(s) was/were filed.
- ☐ The applicant has not provided a copy of the priority documents certified by the Patent Office where the prior application(s) was/were filed and the priority claim(s) is/are deemed not to have been made in accordance with the provisions of Article 30 of the Chinese Patent Law.
3. ☐ The applicant submitted amendment (s) to the application on _____ and on _____, wherein the amendment (s) submitted on _____ and _____ on _____ are unacceptable, because said amendment(s) is/are not in conformity with
- ☐ the provisions of Article 33 of the Chinese Patent Law;
- ☐ the provisions of Rule 51 of the Implementing Regulations of the Chinese Patent Law.
- The detailed reasons for the amendments being unacceptable is described in the text of this Office Action.
4. ☒ The examination is proceeded based on the application documents originally filed.
- ☐ Description:
- Pages _____ of original application documents filed on the application date,
- Pages _____ filed on; Pages _____ filed on;
- Pages _____ filed on; Pages _____ filed on;

☐ Claims:

Pages _____ of original application documents filed on the application date,

Pages _____ filed on; Pages _____ filed on;

Pages _____ filed on; Pages _____ filed on;

☐ Drawings:

Pages _____ of original application documents filed on the application date,

Pages _____ filed on; Pages _____ filed on;

Pages _____ filed on; Pages _____ filed on;

☐ Abstract: ☐ Filed on the application date; ☐ filed on _____

☐ Drawing to the Abstract: ☐ Filed on the application date; ☐ filed on _____

5. ☐ This Notification is issued without a search having been conducted.

☒ This Notification is issued with a search having been conducted.

☒ The following reference documents have been cited in this office action (their serial numbers will be referred to in the ensuing examination procedure):

| Serial No. | Reference document(Number or Title) | Publication Date (or Filing date of interference patent applications) |
|------------|--------------------------------------|--|
| 1 | CN 1105166A | 12day 07 month 1995 year |
| 2 | | day month year |
| 3 | | day month year |
| 4 | | day month year |

6. The conclusive opinion of the examiner is as follows:

☐ Description:

☐ The subject matter of the application falls into the scope, on which no patent right shall be granted, defined by Article 5 of the Chinese Patent Law.

☐ The description is not in conformity with the provisions of Article 26(3) of the Chinese Patent Law.

☐ The description is not in conformity with the provisions of Rule 18 of the Implementing Regulations of the Chinese Patent Law.

☒ Claims:

☐ Claim _____ falls into the scope, on which no granted patent right shall be granted, provided by Article 25 of the Chinese Patent Law.

☐ Claim _____ is not in conformity with the definition of invention prescribed by Rule 2(1) of the Implementing Regulations of the Chinese Patent Law.

☐ Claim _____ does not possess novelty provided by Article 22(2) of the Chinese Patent Law.

☒ Claim 1-12 does not possess inventiveness provided by Article 22(3) of the Chinese Patent Law.

☐ Claim _____ does not possess practical applicability provided by Article 22(4) of the

Chinese Patent Law.

- ☐ Claim _____ is not in conformity with the provisions of Article 26(4) of the Chinese Patent Law.
- ☐ Claim _____ is not in conformity with the provisions of Article 31(1) of the Chinese Patent Law.
- ☐ Claim _____ is not in conformity with the provisions of Rule 20 to 23 of the Implementing Regulations of the Chinese Patent Law.
- ☐ Claim _____ is not in conformity with the provisions of Article 9 of the Chinese Patent Law.
- ☐ Claim _____ is not in conformity with the provisions of Rule 12(1) of the Implementing Regulations of the Chinese Patent Law.

The detailed analysis for above conclusive opinion is described in the text of this office action.

7. On the basis of the above conclusive opinion, the examiner holds that:

- ☐ The applicant should make amendment in accordance with the requirements described in the text of this office action.
- ☐ The applicant should expound reasons for that the above mentioned patent application can be granted patent right, and make amendments to the specification which is not in conformity with the provisions as described in the text of this office action; otherwise the patent right shall not be granted.
- ☒ The patent application does not possess any substantive contents for which patent right may be granted, if the applicant fails to expound reasons or the reasons expounded are not sufficient, this application will be rejected.
- ☐

8. The applicant shall pay attention to the following matters:




- (1) In accordance with the provisions of Article 37 of the Chinese Patent Law, the applicant shall submit a response within four months from the date of receiving this office action. If the applicant fails to meet the time limit without any justified reason, the application shall be deemed to have been withdrawn.
- (2) The amendment made by the applicant shall be in conformity with the provisions of Article 33 of the Chinese Patent Law. The amendment shall be submitted in duplicate copies and in a format which is in accordance with the relevant provisions of the Examination Manual.
- (3) The applicant's response and/or amended documents shall be mailed or submitted to the Receiving Department of the Chinese Patent Office. The documents which are not mailed or submitted to the Receiving Department do not possess legal effect.
- (4) The applicant and/or his(its) agent shall not come to the Chinese Patent Office to interview with the examiner without an appointment.

9. The text of this office action consists of a total of 2 sheets, and is accompanied by the following annexes:

- ☐ A copy of the cited reference documents consisting of _____ sets and _____ sheets.
- ☐ The 3-D Examination Department

The Seal of the Examiner: Yankun WANG

中华人民共和国国家知识产权局

| | | | |
|--|---------------|---|---|
| 邮政编码: 100080 北京市海淀区海淀路 80 号中科大厦 16 层 中科专利商标代理有限责任公司 刘晓峰 | |  |  |
| 申请号: 01144302.2 | 部门及通知书类型: 3-D | 发文日期: | |
| 代理人: 刘晓峰 | |  | |
| 申请人: 三洋电机株式会社 | | | |
| 发明名称: 表面声波滤波器 | | | |

第一次审查意见通知书

1. ☒ 申请人提出了实审请求, 根据专利法第 35 条第 1 款的规定, 审查员对上述发明专利申请进行实质审查。
☐ 根据专利法第 35 条第 2 款的规定, 国家知识产权局决定自行对上述发明专利申请进行审查。
2. ☒ 申请人要求以其在:

| | | | |
|----|---------|------------------|--------|
| JP | 专利局的申请日 | 2000 年 12 月 15 日 | 为优先权日, |
| | 专利局的申请日 | | 为优先权日, |
| | 专利局的申请日 | | 为优先权日, |
| | 专利局的申请日 | | 为优先权日, |
| | 专利局的申请日 | | 为优先权日, |

☒ 申请人已经提交了经原申请国受理机关证明的第一次提出的在先申请文件的副本。
☐ 申请人尚未提交经原申请国受理机关证明的第一次提出的在先申请文件的副本, 根据专利法第 30 条的规定视为未提出优先权要求。
3. ☐ 申请人于____年__月__日和____年__月__日提交了修改文件, 经审查, 其中: ____年__月__日提交的____不能被接受;
 ____年__月__日提交的____不能被接受;
 因为上述修改 ☐ 不符合专利法第 33 条的规定。 ☐ 不符合实施细则第 51 条的规定。
 修改不能被接受的具体理由见通知书正文部分。
4. ☒ 审查是针对原始申请文件进行的。
☐ 审查是针对下述申请文件进行的:
 申请日提交的原始申请文件的权利要求第____项、说明书第____页、附图第____页;
 ____年__月__日提交的权利要求第____项、说明书第____页、附图第____页;
 ____年__月__日提交的权利要求第____项、说明书第____页、附图第____页;
 ____年__月__日提交的说明书摘要。
5. ☐ 本通知书是在未进行检索的情况下作出的。
☒ 本通知书是在进行了检索的情况下作出的。
☒ 本通知书引用下述对比文献(其编号在今后的审查过程中继续沿用):

回函请寄: 100088 北京市海淀区蓟门桥西土城路 6 号 国家知识产权局专利局受理处收

2201 99:1

(注: 凡寄给审查员个人的信函不具有法律效力)

| 编号 | 文件号或名称 | 公开日期 (或抵触申请的申请日) |
|----|-------------|---------------------|
| 1 | CN 1105166A | 1995 年 7 月 12 日 |
| 2 | | 年 月 日 |
| 3 | | 年 月 日 |
| 4 | | 年 月 日 |

6. 审查的结论性意见:

☐ 关于说明书:

- ☐ 申请的内容属于专利法第 5 条规定的不授予专利权的范围。
- ☐ 说明书不符合专利法第 26 条第 3 款的规定。
- ☐ 说明书的撰写不符合实施细则第 18 条的规定。

☒ 关于权利要求书:

- ☐ 权利要求____属于专利法第 25 条规定的不授予专利权的范围。
- ☐ 权利要求____不符合实施细则第 2 条第 1 款关于发明的定义。
- ☐ 权利要求____不具备专利法第 22 条第 2 款规定的新颖性。
- ☒ 权利要求 1-12 不具备专利法第 22 条第 3 款规定的创造性。
- ☐ 权利要求____不具备专利法第 22 条第 4 款规定的实用性。
- ☐ 权利要求____不符合专利法第 26 条第 4 款的规定。
- ☐ 权利要求____不符合专利法第 31 条第 1 款的规定。
- ☐ 权利要求____不符合实施细则第 20 条至第 23 条的规定。
- ☐ 权利要求____不符合专利法第 9 条的规定。
- ☐ 权利要求____不符合实施细则第 13 条第 1 款的规定。

上述结论性意见的具体分析见本通知书的正文部分。

7. 基于上述结论性意见, 审查员认为:

- ☐ 申请人应按照通知书正文部分提出的要求, 对申请文件进行修改。
- ☐ 申请人应在意见陈述书中论述其专利申请可以被授予专利权的理由, 并对通知书正文部分中指出的不符合规定之处进行修改, 否则将不能授予专利权。
- ☒ 专利申请中没有可以被授予专利权的实质性内容, 如果申请人没有陈述理由或者陈述理由不充分, 其申请将被驳回。
- ☐

8. 申请人应注意下述事项:

- (1) 根据专利法第 37 条的规定, 申请人应在收到本通知书之日起的 肆 个月内陈述意见, 如果申请人无正当理由逾期不答复, 其申请将被视为撤回。
- (2) 申请人对其申请的修改应符合专利法第 33 条的规定, 修改文本应一式两份, 其格式应符合审查指南的有关规定。
- (3) 申请人的意见陈述书和/或修改文本应邮寄或递交给国家知识产权局专利局受理处, 凡未邮寄或递交给受理处的文件不具备法律效力。
- (4) 未经预约, 申请人和/或代理人不得前来国家知识产权局专利局与审查员举行会晤。

9. 本通知书正文部分共有 2 页, 并附有下列附件:

- ☐ 引用的对比文件的复印件共____份____页。
- ☐

种表面声波滤波器，其中对比文件 1 具体公开了以下特征：一个压电基底，沿表面波传播方向设置且在所述的压电基底上形成的许多叉指式传感器，将许多所述的叉指式传感器用以形成表面声波滤波器；有至少一个叉指式传感器的至少一个单一通口 SAW 共振器，与所说表面声波滤波器部分的输入和输出侧至少一侧相串联（权利要求 1 和附图 4）。虽然对比文件 1 没有明确地记载将所述共振器中的叉指型传感器的电极之间的间距设置成比所述的滤波器部分的叉指型传感器的电极之间的间距大，但是，对于本领域技术人员来说，可以通过对传感器的数目以及叉指型电极之间的间距的设置等等来获得滤波器的各种特性，因此在对比文件 1 的基础上结合上述本领域的公知常识以获得权利要求 7 请求保护的技术方案对于本领域的普通技术人员来说是显而易见的，不用花费任何创造性劳动的，因此权利要求 7 不具备创造性。

6.对比文件 1 进一步公开了以下特征：两个反射器沿传播方向设置在所述纵向连接的滤波器内排列的多个叉指型电极的两侧，用以将表面声波的振动能量封闭在所述两个反射器之间（附图 4）；所述共振器是单一通口共振器（权利要求 1）。因此以相同的理由，权利要求 8-9 不具备创造性。

7.虽然对比文件 1 公开的共振器的两侧没有反射器，但是对于本领域技术人员来说反射器是可有可无的，在共振器的两侧设置反射器与不设置反射器而依靠一定数量的叉指型传感器和其定位方法都能实现使用晶体端面反射功能。因此在对比文件 1 的基础上结合上述公知常识以获得权利要求 10 的技术方案对于本领域技术人员来说是显而易见的，所以权利要求 10 不具备创造性。

8.权利要求 11-12 记载的附加技术特征已经在对比文件 1 中所公开，参见对比文件 1 的权利要求 1 和 10 以及附图 4。

基于以上的评述，权利要求 1-12 不具备创造性，同时说明书中也没有记载其他可以授予专利权的实质性内容，即使申请人根据说明书的内容对权利要求进行重新的限定和组合，该申请也不具备被授予专利权的前景。如果申请人不能在本通知书规定的期限内提出表明本申请具有创造性的充分理由，本申请将被驳回。



审查三部六处

2003 年 8 月